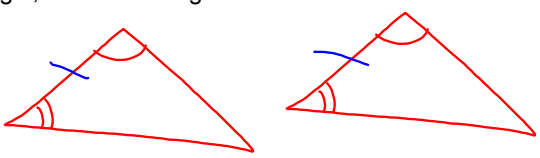
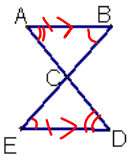
4-5 ASA, AAS, and HL

Postulate 4.3 ASA-If 2 angles and the included side of one Δ are ≅ to 2 angles and the included side of another triangle, then the triangles are ≅.

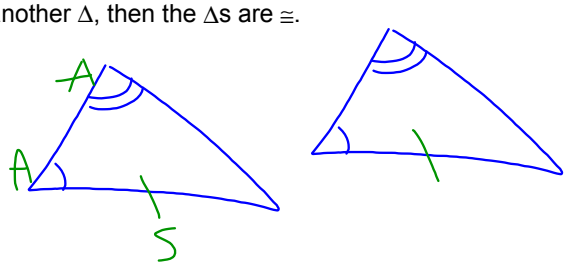


Given: $\overline{AB} \parallel \overline{ED}$; $\overline{AB} \cong \overline{ED}$
Prove: $\Delta ABC \cong \Delta DEC$



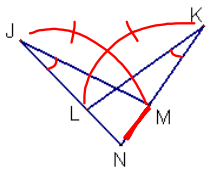
S.	R.
① $\overline{AB} \parallel \overline{ED}$, $\overline{AB} \cong \overline{ED}$	① Given
② $\angle B \cong \angle E$, $\angle A \cong \angle D$	② If ||, alt int ∠s ≅
③ $\Delta ABC \cong \Delta DEC$	③ ASA

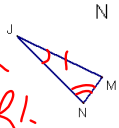
Theorem 4.5 AAS-If 2 angles and a non-included side of one Δ are ≅ to 2 angles and a non-included side of another Δ, then the Δs are ≅.

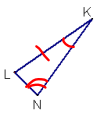


Given: $\angle K \cong \angle J$; $\overline{KL} \cong \overline{JM}$
Prove: $\overline{LN} \cong \overline{MN}$

ΔNSM ~~ΔMNS~~ ΔLNK

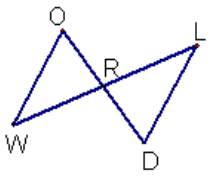




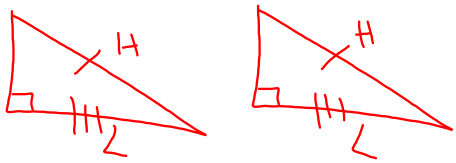


① ~	① Given
② $\angle N \cong \angle N$	② Refl.
③ $\Delta LNK \cong \Delta MNS$	③ AAS
④ $\overline{LN} \cong \overline{MN}$	④ CPCTC

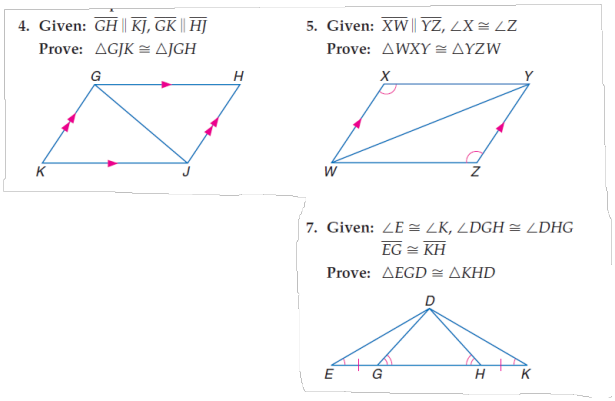
Given: $\overline{WO} \parallel \overline{LD}$; R is the midpoint of $\overline{WL}$
Prove: $OR \cong DR$



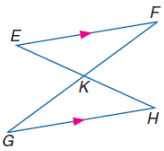
HL (Hypotenuse-Leg)-If the hypotenuse and a leg of one right Δ are $\cong$ to the hypotenuse and one leg of another right Δ, then the Δs are $\cong$. (p.215)



HW
p. 210-211 #s 4, 5, 7, 9, 11
(supp. Of $\cong$ $\angle$s are $\cong$)



9. **Given:** $\overline{EF} \parallel \overline{GH}, \overline{EF} \cong \overline{GH}$
Prove: $\overline{EK} \cong \overline{KH}$



11. **Given:** $\angle V \cong \angle S, \overline{TV} \cong \overline{QS}$
Prove: $\overline{VR} \cong \overline{SR}$